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January 9, 1989

TO: File

FROM: David W. Darby, Geologist 

RE: Technical Analysis Review of Lease U-54762, Genwal Coal Company, Crandall Canyon Mine, ACT/015/032, Folder #2, Emery County, Utah

SUMMARY

A technical review has been conducted on Genwal Mining Company's (Genwal) Mining and Reclamation Plan (MRP) proposal for a mine permit revision (Federal lease U-54762). The lease totals an area of 256.5 acres north and east of the current mine permit area.

CONCLUSION

The following comments were reviewed with respect to regulations governing geology, ground water and subsidence. The comments address the status of information submitted February 10, 1988, November 25, 1988, December 5, 1988 and December 27, 1988.

UMC 817.41 Hydrologic Balance

Applicant's proposal

No material damage or diminution of value or foreseeable use of lands is expected to occur. The applicant plans to minimize changes to the prevailing hydrologic balance. The applicant describes the methodologies to be used to analyze and maintain the ground water conditions at and adjacent to the minesite in Chapters 3, 7 and 12 of the Mining and Reclamation Plan (MRP).

Compliance

The following comments indicate the status of completeness for each of the following regulations.

UMC 817.52 Surface and Ground Water Monitoring

Applicant's Proposal

GROUND WATER

The geologic characteristics in the vicinity of the mine area are described in Chapters 6 and 7.

Ground water hydrology is addressed in Chapter 7. The applicant conducted seep and spring surveys during June and October of 1985. Spring locations and monitoring sites are illustrated on Figures 7-2 and 7-3. Table 7-1 provides the baseline data obtained from the 1985 surveys.

In March of 1987 the applicant developed a ground water monitoring well (MW-1, see Figure 7-4 for location). The well monitors the water level in the Star Point Sandstone at a level approximately 186 feet below the surface. During the first quarter of 1989 the operator will construct two wells (MW-2 and MW-3, see Figure 7-4) in the mine, which will also be used to monitor the levels and quality of the Star Point Sandstone.

Water level measurements and water quality samples will be collected from the wells on a quarterly basis following completion. Water quality samples will be analyzed according to the list provided in Table 7-4.

Compliance

The information submitted by the applicant is sufficient to address this section.

Stipulation

None.

UMC 817.53 Transfer of Wells

Applicant's Proposal

The applicant has addressed this issue on page 3-29 (submittal dated 2-10-88) in the MRP.

Compliance

The information submitted by the applicant is sufficient to address this section.

Stipulation

None.

UMC 817.121-126 Subsidence Control

The applicant has presented a subsidence control plan in Section 12 of the MRP. A survey was conducted for structures and renewable resources. Although no structures exist, renewable resources do exist in grazing and ground water sources.

The applicant has developed a new subsidence control monitoring plan to take the place of the original U.S Forest Service survey. The U.S. Forest Service's surveys will be used as a baseline reference to the new plan.

Mining will be conducted as room and pillar development and extraction in the Hiawatha seam. The sequence of mining and pillar extraction has been illustrated on Plate 3-3. The applicant has committed (page 12-13) to implement an their own surveys annually survey of approximately 80 stations. Every fifth year a color infrared survey will be conducted to monitor vegetation variations.

Items 12-1 to 12-5 in Chapter 12 depict geotechnical information to illustrate magnitude and distribution of subsidence, which is expected to be, at a maximum, 70% (3.9 feet) of the coal seam (page 12-11).

The U.S. Forest Service, as surface owner, is requiring the applicant to show acceptance of the subsidence conditions by the U.S. Bureau of Land Management (BLM), the minerals management agency. The applicant has been in consultation with the BLM and received their concurrence with the conclusions presented in the Mining and Reclamation Plan. A copy of the correspondence may be found in Exhibit 12-7.

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Compliance

The information submitted by the applicant is sufficient to address this section.

Stipulation UMC 817.121-126 - DWD

The applicant must receive concurrence for approval of the subsidence monitoring program from the U.S. Forest Service before final approval can be issued from the Division of Oil Gas and Mining.

dwd

cc: R. Harden
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